

# DETERMINANT FACTORS OF CYBERBULLYING: AN APPLICATION OF THEORY OF PLANNED BEHAVIOR

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## ABSTRACT

Employing the Theory of Planned Behavior (TPB), this study aims to find determinant factors that have influence over individuals' intention to cyberbully others. Along with the TPB's main variables, including attitude, subjective norms and perceived behavioral control, in this research, the role of moral obligation, perceived threat of legal punishment and overall gain was also studied. Using a scenario-based questionnaire, the data were collected from 96 students in Universiti Teknologi Malaysia. According to the results, subjective norms and overall gain reflected to be significant over cyberbullying intention, while the rest of variables did not reflect any significance. The impact of these determinants was not the same among females and males, which reflect gender differences matters in intention to cyberbully.

**Keywords:** *Cyberbullying, Cybercrimes, Theory of Planned Behavior, Computer Ethics*

## 1 INTRODUCTION

This guide provides details to assist authors in preparing a paper for publication in JATIT so that there is a consistency among papers. These instructions give guidance on layout, style, illustrations and references and serve as a model for authors to emulate. Please follow these specifications closely as papers which do not meet the standards laid down, will not be published. Cyberbullying is defined as willful and repeated threatening, humiliation, torment or harassment of one minor by another minor via computers, cell phones or other electronic devices [1-3]. This definition is important since some main characteristics of cyberbullying are embedded in it. Cyberbullying is an act which is done intentionally (not accidentally) several times (to reflect a behavior, not an occasional act) to do a kind of harm (as perceived by the target) through a digital medium (this is what make its different from traditional bullying) [3]. SNSs are a perfect tool for cyberbullying due to the common use of SNSs among young people.

Quinn [4] believes that cyberbullying normally involves a group of people who gang up to harm the victim psychologically. He gives a set of examples for cyberbullying including:

“Repeatedly texting or emailing hurtful messages to another person, spreading lies about another person, tricking someone into revealing highly personal information, outing or revealing someone's secrets online, posting embarrassing photographs or videos of another person without their consent, impersonating someone else online in order to damage that person's reputation and threatening or creating significant fear in another person.” [4,p. 139]

According to a survey by Microsoft [5] on “Online Bullying Among Youth 8–17 Years Old”, 33% of respondents in Malaysia were subjected to cyberbullying. This was less than the average in the world, which was 37% [6]. Malaysia was ranked seventeenth highest in online bullying among the twenty-five countries surveyed. Although the results show that boys and girls are equally likely to become bullied online (32% vs. 33%), girls are more afraid of becoming victims of cyberbullying

(43% vs. 33%). Figure 1 presents the comparative results of Malaysian and the world in rates of cyberbullying.

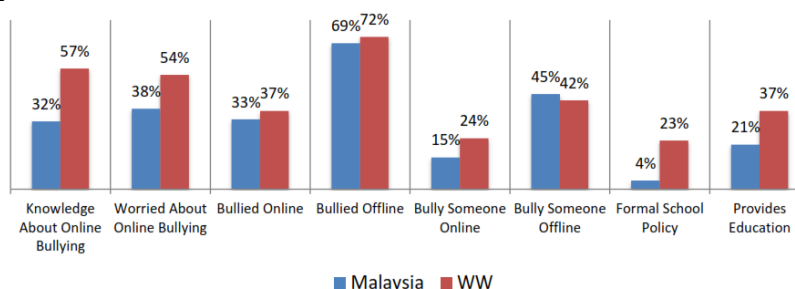


Figure 1: Online bullying metrics: Malaysia vs. worldwide average [5]

As can be seen in figure 1, the rate of children who bullied someone and those were bullied online in Malaysia is lower than the world's average. However, knowledge about cyberbullying and formal policies in schools are very low in comparison with the world. According to these findings, Malaysian parents took fewer steps to protect their children from cyberbullying (1.7% vs. 3.3%) and only 4% of schools have formal policies to address cyberbullying. Based on these findings, it is clear that cyberbullying is a significant challenge globally and Malaysia is not an exception.

According to the Malaysian Communications and Multimedia Commission, from 2009 to 2011, 625 cases related to people with offensive comments via the phone or Internet were investigated. Among these, only 16 were brought to the court and just three led to convictions [7]. According to a study carried out on 9,651 primary and secondary school students by CyberSecurity Malaysia [8], 27% of students admitted to having been bullied online while 13% of students said they were still being bullied online. The survey also recorded 49% of students saying they knew of someone who had been bullied online. The most common types of online bullying recorded are sending or receiving nasty messages, being called mean names and having their online accounts hacked [8].

Cyberbullying not only affects the victim in the cyber world, it causes real problems including emotional and psychological issues, offline mistreatment, academic difficulties, clinical depression and low self esteem [1]. Sometimes the cyberbullying becomes so extreme that it results in the victim's suicide [9]. Due to the different forms that cyberbullying can take, it is difficult to identify and stop it. School authorities that get involved in cyberbullying are sometimes sued for violating students' rights of freedom of expression, especially when it happens out of schools [2].

The remainder of this paper is organized as follows. In section 2, a short review of the Theory of Planned Behavior (TPB) is provided. In section 3, the method of hypothesis development and conceptual model is presented. In section 4, the method used in this research is elaborated. Section 5 presents the results of data analysis which is followed by a discussion in section 6. Section 7 and 8 is devoted to limitation and implications of this study. Finally, acknowledgment is presented in section 9.

## 2 THEORY OF PLANNED BEHAVIOR

By studying the potential impact of attitude on behavior, Wicker [10] reported that these two are not related. This conclusion was echoed in other researches and many researchers reported a weak correlation between attitude and behavior [11]. Out of frustration with traditional theories, Fishbein and Ajzen [12] proposed the Theory of Reasoned Action (TRA). According to TRA, behavior is influenced by attitude and Subjective Norms (SN) and the reason why other researches did not find such a relation might lie in measurement issues. Later they extend TRA and added Perceived Behavioral Control (PBC) to propose TPB [13]. TPB suggests that attitude, SN and PBC are the most influential factors to predict intention. It claims that deliberate behavior with a high accuracy can be predicted by intention [14]. These two theories became the most widely researched models of behavior [15]. In all volitional activities, such as mountain climbing, swimming, skiing, etc., TPB could be applied as a proper theory to predict individuals' intention [13] and intention to a great extent influences actual behavior [16].

According to Jafarkarimi, et al. [17, p. 546], "the five constituents of TPB can be defined as below:

- i. Behavior is an individual's act in a certain case which is the result of intention and PBC,

- such that a desired intention will only lead to behavior if PBC is strong.
- ii. Intention is the core element of TPB and refers to individuals' readiness to perform a given behavior.
  - iii. Attitude refers to the evaluation of an individual about the question of how favorable or unfavorable an act is. It depends on an individual's beliefs and the evaluation of those beliefs.
  - iv. SN is defined as an individual's perception about what most others who are important to him or her think he or she should do.
  - v. PBC refers to the perceived easiness or difficulty of an act to be done."

Based on a review of 185 studies, Armitage and Conner [15] reported that TPB is an efficient predictor of behavior. In line with this, some other scholars have also claimed that this theory is appropriate in the Context of ICT [18-22]. Therefore TPB is applied in this study to investigate the reason behind people's intention to cyberbully others.

### 3 MODEL

The aim of this research is to find influential factors that influence behavioral intention towards cyberbullying. According to TPB, behavioral intention is under the influence of three variables, namely attitude, subjective norms and perceived behavioral control (PBC). Attitude refers to one's evaluation about the degree to which the behavior under question is favorable or unfavorable. It is believed that people are more engaged with activities that they believe to be more favorable for them. As a result, the first hypothesis was proposed to be:

[H1] Attitude towards cyberbullying has a positive effect on individuals' intention to cyberbully.

Subjective norms refer to the idea of those people who are important for the individual and his or her perception about how they evaluate the behavior under question. It is expected that people engage with those activities that are more acceptable in the eye of those who are important and close to them [20, 23]. Consequently, the second hypothesis was proposed to be:

[H2] Subjective norms have a positive effect on intention to cyberbully.

PBC is defined as the ease or difficulty of a behavior to be done. In case of deliberate behavior, people are involved in those activities that they perceive to be easier for them [24]. Thus, in this research it is hypothesized that:

[H3] PBC has a positive influence on individuals' intention to cyberbully.

In addition to these three variables as the main elements of TPB, this research included another three constructs which can hypothetically have impact on the behavioral intention towards cyberbullying. To this end, moral obligation, perceived threat of legal punishment (PTLP) and overall gain were also included in the proposed model. Moral obligation reflects an individual's feeling about how morally wrong an act is. It is believed that people are less involved with those activities that they believe to be morally wrong [22, 25]. Hence, it is hypothesized that:

[H4] Moral obligation has a negative influence on individuals' intention to cyberbully.

In most cases, people avoid doing something which is forbidden by law and may cause them problems if they conduct a behavior which breaks the law. This influence is even more important as the legal threat of punishment gets more severe [26]. PTLP refers to the threat of legal punishment as perceived by an individual. It is believed that people get less involved with those behaviors with more PTLP. Consequently, it is hypothesized that:

[H5] PTLP has a negative effect on individuals' intention to cyberbully.

According to Schweitzer, et al. [27], people do cost-benefit analysis before conducting a behavior. In this case, the cost of cyberbullying can be the disapproval from the people who are important for the individual and PTLP. To include the benefits of the act, we added the last variable which is the overall gain. According to this point of view, people are more involved with those activities from which they believe they gain more. Hence, it is hypothesized that:

[H6] Overall gain has a positive effect on individuals' intention to cyberbully.

Based on the six hypotheses, a model was proposed for influential factors that impact individuals' intention to cyberbully. Figure 2 represents this research's model.

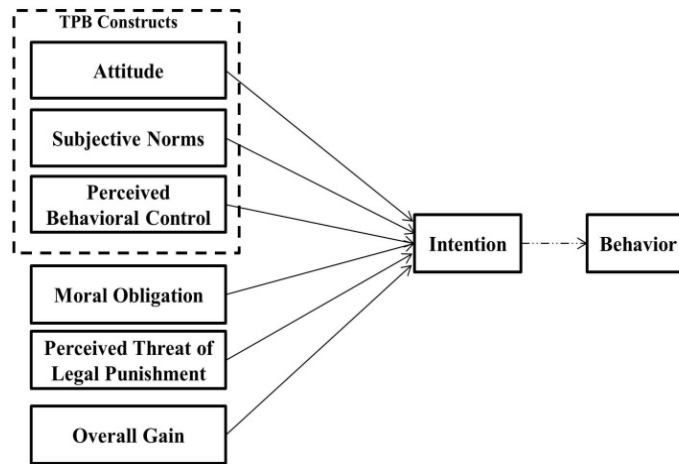


Figure 2: The proposed Cyberbullying model

As it is presented in figure 2, the three main predictors of intention as proposed in TPB are illustrated in the dotted square, and the extensions are put below the dotted square. Since behavior is not observable in this case and since the intention is the dependent variable, the influence of intention on behavior is also shown with a dotted line. To collect the data, focusing on the role of aforementioned factors on behavior, a scenario-based questionnaire was designed and implemented which is explained in the following section.

## 4 METHOD

### 4.1 Questionnaire Design

In order to capture each individual's behavioral intention towards cyberbullying, a scenario-based questionnaire was designed. Scenarios or cases are widely used in IS research where the behavior may not be possible to be observed or asked. For instance, the odds for a person to be a cyberbully are very low. Even if a researcher finds a sample with many cyberbullies, respondents may not consider themselves as cyberbullies, and direct questions might not work. To overcome this issue, we employed the method discussed in Jafarkarimi, et al. [28]. To this end, 3 scenarios were designed and embedded with a questionnaire, (Appendix) and people were asked to answer a set of 5-point Likert scale questions regarding the story presented to them. In line with the scenarios that were included in the questionnaire, different items were used to measure behavioral intention and its six predictors. These scales were all reflective, and no formative scale was used. To measure main constructs of TPB, including behavior, attitude, subjective norms and PBC, scales were adopted from Chen, et al. [29], Chatterjee [20], Ajzen [30], Arvola, et al. [31] and Armitage and Conner [15].

For moral obligation, the items were adopted from Siegfried [32] and Singhapakdi, et al. [33]; for PTLP scales, those from Grasmick and Green [34] were used. Finally, in the case of overall gain, authors have proposed their own scale. The reason behind those three items (table 1) is that in case of presented scenarios, the benefit is not financial. The action is mostly done for the sake of getting revenge, and the closest definition of such a variable can be "the overall gain from fulfilling such a desire". To this end, three items that are more related to this concept were proposed and used.

### 4.2 Sampling

Following the questionnaire design process, the data was collected from students in Universiti Teknologi Malaysia in a convenient approach. Through the process of data collection, people were asked whether or not they have 15 to 20 minutes to answer a survey instrument. In cases in which they replied positively, the questionnaire along with a pen (worth RM 0.8) as an incentive was passed to them. Altogether, 96 sets of responses were collected (49% male and 51% female). The majority of respondents were Muslim (82%) followed by Buddhist (8%) and Christian (4%). 27% of the respondents reported their current level of education as Bachelor, 27% Master and 32% PhD. Respondents were aged between 17 to 47 (Mean 27.3 and Std. Deviation 6.139). Since there were 3 scenarios in each questionnaire, 288 answers to the sets of questions were collected. This quantity of responses was adequate to the proposed model based on Cohen's [35] recommendation.

### 4.3 Measurement Model

Following the data collection, analysis was done using partial least squares-structural equation

modeling (PLS-SEM) technique. This technique was selected since, firstly, it was predicted that because the behavior in question is completely unethical, the normality in responses may not be achieved. PLS-SEM is a method that can handle samples with normality issues. In fact, since PLS-SEM is a nonparametric approach, no distributional assumption is needed for it [36]. Secondly, PLS-SEM can achieve high levels of statistical power with small sample sizes [37]. Finally, PLS-SEM is highly robust with missing values [38]. Hence, the procedure for the measurement model and

hypothesis testing were designed and followed based on a technique following Hair, et al. [39] methodology.

To ensure the credibility of the questionnaire and consequently results, the designed instrument went through the process of validity and reliability checking. To this end, for internal consistency, Cronbach's alpha and composite reliability were used. Average variance extracted (AVE) and outer loadings were evaluated for convergent validity. The results for these tests and the desirable thresholds for each of them are presented in table 1.

Table 1: Reliability and Convergent Validity Check Results

Construct		Convergent Validity		Internal Consistency	
Name	Items	Outer Loading (>.7)	AVE (>.5)	Composite Reliability (>.7)	Cronbach's Alpha (>.6)
<b>Attitude (ATT)</b>	X's decision is Foolish (to) wise	.883	.762	.906	.846
	X's decision is Harmful (to) Beneficial	.886			
	X's decision is Unpleasant (to) Pleasant	.849			
<b>Intention (INT)</b>	If I was X', I would do as (s)he did.	.871	.788	.918	.866
	Depending on the situation, I might do what Ali did.	.903			
	I may do as Ali did in future.	.889			
<b>Moral Obligation (MO)</b>	In my opinion, X's decision is morally wrong.	.670	.592	.812	.675
	I would feel guilty if I do what X did.	.873			
	X's act goes against my principles.	.753			
<b>Overall Gain (OG)</b>	In the same case with Ali's if I do what he did, it will satisfy me.	.914	.780	.914	.859
	If I do what Ali did, I feel a great pleasure.	.932			
	I believe Ali's act is fun.	.798			
<b>Perceived behavioral control (PBC)</b>	If I wanted to, I would easily do what Ali did.	.363	.634	.821	.791
	Technically it is easy for me to do what Ali did.	.947			
	I would be able to do what Ali did even if there was no one to show me how.	.935			
<b>Perceived Threat of Legal Punishment (PTLP)</b>	If I do what Ali did, I might be arrested.	.723	.760	.904	.865
	If I do what Ali did and I get arrested, I will be in a big problem.	.907			
	If I do what Ali did and I get arrested, the punishment that I will face will create a big problem for my life.	.967			
<b>Subjective norms (SN)</b>	My friends would think nothing is wrong with X's act.	.760	.744	.897	.828
	If I do what X did, most of the people who are important to me would approve.	.897			
	Most people who are important to me think that it is okay if I do what X did.	.922			

\* In the questionnaire, depending on the scenario that was used, different names were replaced by "X".

According to table 1, all criteria for the assessed test were passed but outer loading for PBC1. Since the outer loading value for PBC 1 was less than threshold and even less than 0.4, based on Hair, et al. [39] guideline, this indicator was removed. The reason behind this indicator's failure may be that respondents did not feel that the easiness in this question reflects technical aspects. They may have misunderstood it with the meaning that "in the same case, I would easily do this" which is not the case with PBC and is closer to the intention's definition. Finally, to ensure the discriminant validity of the

results, Fornell-Larcker criterion was assessed (table 2).

Table 2: Fornell-Larcker Criterion Analysis

	ATT	INT	MO	OG	PBC	PTLP	SN
<b>ATT</b>	<b>.873</b>						
<b>INT</b>	-.319	<b>.888</b>					
<b>MO</b>	.473	-.549	<b>.770</b>				
<b>OG</b>	-.349	.702	-.596	<b>.883</b>			
<b>PBC</b>	-.094	.189	-.166	.218	<b>.796</b>		
<b>PTLP</b>	.117	-.043	.152	-.011	-.222	<b>.872</b>	
<b>SN</b>	-.254	.663	-.462	.511	.175	-.198	<b>.863</b>



As indicated in table 20, all amounts of the square roots of each construct's AVE were higher than its correlation with other constructs and, hence, this instrument was found to have discriminant validity.

## 5 ANALYSIS AND RESULTS

### 5.1 Hypothesis Testing

Following the discussed procedure, the data was ready for hypothesis testing. To this end, path coefficients in addition to *t*-value and *p*-value were examined. A summary of results is presented in table 3.

Table 3: Summary of Hypothesis Testing Results

R <sup>2</sup> = .629	Path	Coefficient	t-value	p-value
H1	ATT→INT	-.039	.857	.391
H2	SN→INT	.405	3.178	.001 ***
H3	PBC→INT	-.104	.915	.36
H4	MO→INT	.037	1.49	.136
H5	PTLP→INT	.06	.866	.386
H6	OG→INT	.399	4.12	.000 ***
Note: *** p<0.01				

According to the results presented in table 3, in the complete set of data, only two out of six hypotheses were supported. Based on these results, the effect of subjective norms on the intention to cyberbully was significant at a very high level (*p*-value < 0.01). The same was the case with overall gain. Although all the hypotheses but two were rejected, the R<sup>2</sup> value of 0.629 reflected a high degree of variance explained by the proposed model. To investigate to what degree this explained variance belonged to each of the independent factors, total effects were assessed. The results are presented in figure 3.

As it can be seen, the highest portion of intention variance is explained by overall gain and subjective norms. This indicates that although only two of the proposed variables could be considered as the influential factors on intention, these two variables are still able to explain variance in intention with a high degree ( $R^2 = 0.618$ ).

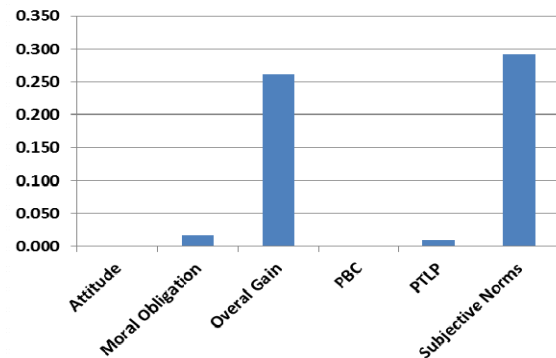


Figure 3: Results of  $f^2$  Effect Sizes

### 5.2 Scenarios

To investigate whether or not the proposed model and its respective hypotheses analysis were the same across each of the investigated scenarios, PLS-SEM multi group (PLS-MGA) analysis was done to compare the model in different scenarios. For this aim, the parametric approach to PLS-MGA was employed. Since this approach is designed for comparing two categories, the dataset was divided to three subgroups according to the three different scenarios. These three subgroups then were compared together. The results are shown in table 4.

Table 4: Results of Parametric Approach to PLS-MGA for Different Scenarios

Path	1 vs. 2			2 vs. 3			1 vs. 3		
	coefficient	t-value	p value	coefficient	t-value	p-value	coefficient	t-value	p value
ATT→INT	0.191	1.166	0.245	0.008	0.082	0.934	0.206	1.639	0.103
SN→INT	0.349	1.337	0.183	0.501	2.141	<b>0.034 (**)</b>	0.152	0.461	0.645
PBC→INT	0.070	0.626	0.532	0.038	0.469	0.640	0.032	0.294	0.769
MO→INT	0.343	1.942	0.054	0.219	0.103	0.272	0.124	0.701	0.484
PTLP→INT	0.121	0.923	0.358	0.113	1.142	0.255	0.234	1.551	0.123
OG→INT	0.177	0.738	0.462	0.277	1.541	0.125	0.1	0.393	0.695

Note: \*\* p<0.05

According to the results in table 4, the only difference was observed on the path between subjective norms and intention to cyberbully. This suggests that the role of subjective norms on different cases of cyberbullying can be altered.

### 5.3 Gender Differences

In case of behavioral decision making, gender may also play an important role. Previous studies reported some differences in the case of ethical behavior among females and males [40-42]; to this end, all the hypotheses were checked for males and

females differently. The results are presented in table 5.

*Table 5: Hypothesis Testing for Females and Males Separately*

		Path	Coefficient	t-value	p-value
Females R <sup>2</sup> = .737	H1	ATT→INT	-0.099	1.483	0.138
	H2	SN→INT	0.618	3.810	<b>0.000(***)</b>
	H3	PBC→INT	0.023	0.500	0.617
	H4	MO→INT	-0.084	0.951	0.342
	H5	PTLP→INT	-0.105	1.568	0.119
	H6	OG→INT	0.183	1.310	0.190
Males R <sup>2</sup> = .667	H1	ATT→INT	0.017	0.211	0.833
	H2	SN→INT	0.101	1.266	0.205
	H3	PBC→INT	-0.004	0.068	0.946
	H4	MO→INT	-0.223	2.879	<b>0.004(***)</b>
	H5	PTLP→INT	-0.071	0.785	0.432
	H6	OG→INT	.0615	9.868	<b>0.000(***)</b>
Note: *** p < .01					

The results of hypothesis testing for females and males reflected that among females, the most and in this case, the only determinant of intention to cyberbully is subjective norms. This case was different among males, and they seemed to follow their overall gain and moral obligation at most. Although these differences are observed among the two groups, to make sure the differences are statistically significant, another MGA-PLS was conducted for females and males. The results are presented in table 6.

*Table 6: Results of parametric approach to PLS-MGA for gender differences*

Path	coefficient	t-value	p-value
ATT→INT	0.116	1.135	0.258
SN→INT	0.517	2.844	0.005 (***)
PBC→INT	0.027	0.377	0.707
MO→INT	0.139	1.177	0.240
PTLP→INT	0.210	1.835	0.068(*)
OG→INT	0.517	2.844	0.005(***)
Note: * p<0.1, *** p < .01			

The results of PLS-MGA statistically supported the observed differences among females and males in cases of subjective norms and overall gain. In addition, the p-value for the path between PTLP and intention was also significant, which reflected a difference for the impact of PTLP on intention among females and males. However, since this variable was not significant among neither males nor females, this difference was not logically relevant. Finally, while the moral obligation reflected to be important factors for cyberbullying

intention, among males (p-value <0.01) and not important among females, the results of parametric PLS-MGA did not reflect any statistical difference. To make sure, the results of PLS-MGA and Welch-Satterthwait tests in SmartPLS (3.0) were also checked, and neither one reflected any statistical significance between the two groups. Consequently, the observed difference between females and males in the case of moral obligation was not statistically supported.

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## 6 DISCUSSION

This study investigated the relevance of TPB variables, including attitude, subjective norms and PBC along with moral obligation, PTLP and overall gain, on intention to cyberbully. The results supported the impact of subjective norms and overall gain in the complete set and the role of moral obligation among males.

Although attitude in many studies has shown to be an important determinant of intention to cyberbully [43, 44], its role in the case of this research was not supported. The non-significant effect of attitude on intention in the case of cyberbullying was also observed by Lazuras et al. [45], and they proposed that cyberbullying is more under the influence of subjective norms (or as they call it descriptive norms). This claim is also supported in this research, and subjective norms were seen to have the highest effect size on intention to cyberbully. However, its impact was notably higher among females, while among males it was not even among the determinants. The results of MGA-PLS for

different scenarios also reflected that the impact of subjective norms is not always the same, and depending on the cases, it might be varied. The third construct of TPB, PBC, also reflected no significance over cyberbullying. This suggests that cyberbullying is a behavior with full volitional control, and as Armitage and Conner [46] state, the role of PBC in such cases becomes irrelevant. Based on this, only one of TPB variables are among the determinants of cyberbullying intention, and consequently we cannot claim that TPB was a sound theory in predicting intention in this research's sample.

Moral obligation had a strong influence on intention to cyberbully among males but did not reflect any significance among females. The same goes to the impact of overall gain, and while it was a strong determinant among men, it was not important among women. These findings suggests that cyberbullying intention has different influential factors among females and males, and gender differences to a great degree influence what people consider when they intend to engage with cyberbullying behavior.

## 7 LIMITATIONS

Although careful steps were followed to evaluate the hypotheses, some limitations exist in current research. Firstly, the convenient sampling for this study affects the generalizability of the results to other populations. Secondly, the sample size for this study was equal to the minimum sample size needed for testing the proposed hypothesis, and with higher amount of respondents, the precision might be increased. Thirdly, the sample was selected from university students, and focusing on younger generations might alter the results. Finally, although the method of analysis (PLS-SEM) did not require a normal distribution sample, a closer distribution to normality may result in more reliable results. However, in studies such as the present study, achieving normality is very difficult since finding a sample with many people intending to do cyberbullying is not easy.

## 8 CONCLUSION

ICT with all the positive changes and merits on human life has its own side effects. It paved the way for traditional unethical behavior to happen even more easily. To control unethical behavior in ICT world, the first step is to find out what are the influential factors that have effect on such behaviors. Focusing on those variables, planners can think of methods to reduce and control the negative effects of ICT in societies. To this end,

researchers are ought to rely on the existing body of knowledge to find sound theories that are able to predict unethical behaviors. Among such behaviors is bullying in electronic formats which is called cyberbullying. Employing TPB, this research tried to investigate whether or not this theory can be a valid theory to predict cyberbullying among students in Malaysia. The results reflected that the only variable that has influence over cyberbullying behavior is SN. In addition to SN which is one of the main variables in TPB, OG also reflected to be amongst the significant predictors of intention to cyberbully. According to the finding, the best method to control this behavior can be courses and talks to reflect the negative impact and enlightening the peoples mind about cyberbullying and its negative impact on human lives. If this action becomes more undesirable, people would be expected to engage less with such activities and consequently less psychological issues in societies.

## 9 ACKNOWLEDGMENTS

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## **APPENDIX**

### **Scenario 1**

Last week, Ali's girlfriend broke up with him without any explanation. Ali is frustrated and depressed. He thinks that he needs to get revenge. Having a lot of very personal pictures of her which she does not want to be shared with the public, he decides to make a weblog and share the pictures to teach her a lesson.

### **Scenario 2**

Richard believes that his teacher is not fair with him. He keeps asking him to do a lot of work and yet Richard does not receive good marks. Richard had an opportunity to have access to his teacher's laptop and has many personal emails from him. Since the teacher is not aware of this, Richard decides to send the emails one by one to some people to make problems for his teacher.

### **Scenario 3**

Jessica and her friends feel that one of their colleagues is working too hard to attract the attention of their managers. They believe that this colleague's acts raise the expectations of their work, with the result that they must work longer and harder. Creating a fake ID, they start to send her threatening emails and say that if she does not stop what she is doing, they will do this and that.